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Measurement of Beam Asymmetry t-Dependence of a Photoproduced η' off the Proton at GlueX[1] CHURAMANI PAUDEL, JOERG REINHOLD, Florida International University, GLUEX COLLABORATION — The GlueX experiment is a photoproduction experiment which is located at Thomas Jefferson National Lab in Newport News, Virginia. We report on measurements of the beam asymmetry (Σ) in the reaction $\gamma p \to \eta' p$, using a tagged, linearly polarized 9 GeV photon beam incident on a liquid hydrogen target. A previous measurement, which was limited to momentum transfer up to $-t = 0.9$ (GeV/c)^2, indicated that the reaction mechanism is dominated by ρ and ω meson exchanges [1]. Use of higher statistics will allow us to study whether this holds true at higher momentum transfer. We will present the preliminary results from ongoing analysis in particular azimuthal angular distributions, yield asymmetries and extracted beam asymmetries as a function of -t for different η' decay modes. *This work was partially supported by the U.S. Department of Energy, Office of Science, Office of Nuclear Physics under contracts DE-SC0013620 and DE-AC05-06OR23177. [1] S. Adhikari *et al.* [GlueX Collaboration], Phys. Rev. C **100**, no. 5, 052201 (2019)

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